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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,865	10/27/2003	Toshihito Yanashima	020265A	9185

23850 7590 11/17/2006

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EXAMINER

NGUYEN, HANH N

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 11/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/692,865

Applicant(s)

YANASHIMA ET AL.

Examiner

Nguyen N. Hanh

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-12 and 16-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-12 and 16-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Liu et al. (US Patent No. 4,358,696).

Regarding claims 10-12, Liu et al. disclose a synchronous induction motor comprising: a stator equipped with a stator winding; a rotor which is secured to a rotating shaft and which rotates in the stator; a secondary conductor provided around the rotor yoke constituting the rotor; and permanent magnets embedded in the rotor yoke, each said permanent (or magnet as in claims 11 and 12) having a linear shape and provided symmetrically about a line that connects two magnetic poles, wherein the permanent magnets have lengths which are radially disposed, and wherein the permanent magnets are substantially adjacent to the rotating shaft, wherein a magnetic field produced by the permanent magnets does not pass through the rotating shaft (or bypasses the rotating shaft as in claim 11, or passes through only the rotor yoke, excluding the rotating shaft as in claim 12).

2. Claims 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Miyashita et al. (US Patent No. 4,403,161).

Regarding claims 16 and 18, Miyashita et al. disclose a synchronous induction motor comprising: a stator (7 in Fig. 2) equipped with a stator winding; a rotor which is secured to a rotating shaft (2 in Fig. 1) and which rotates in the stator; a secondary conductor (6) provided around the rotor yoke constituting the rotor; and permanent magnets (4 and 5) embedded in the rotor yoke, each said magnet having an arcuate shape curving around the rotating shaft and provided symmetrically about a line that connects two magnetic poles, wherein the permanent magnets are substantially adjacent to the rotating shaft, wherein a magnetic field produced by the permanent magnets does not pass through the rotating shaft (or bypasses the rotating shaft as in claim 11, or passes through only the rotor yoke, excluding the rotating shaft as in claim 18).

3. Claim 17 is rejected under 35 U.S.C. 102(b) as being anticipated by Miyashita et al. (US Patent No. 4,403,161).

Regarding claim 17, Miyashita et al. disclose a synchronous induction motor comprising: a stator (7 in Fig. 2) equipped with a stator winding; a rotor which is secured to a rotating shaft (2 in Fig. 1) and which rotates in the stator; a secondary conductor (6) provided around the rotor yoke constituting the rotor; and permanent magnets (4 and 5) each having an arcuate shape curving around the rotating shaft and provided symmetrically about a line that connects two magnetic poles, wherein the permanent magnets are substantially adjacent to the rotating shaft, and wherein a magnetic field produced by the permanent

Response to Arguments

4. Applicant's arguments filed on 8/21/2006 have been fully considered but they are not persuasive.

Regarding claims 10-12, the Applicant's argument is on the ground that the reference the Examiner relies on, Liu et al., shows the magnets 43a, 43b, 43c are not arranged substantially adjacent to the rotating shaft. The Examiner respectfully disagrees with the Applicant because Webster's dictionary defines "adjacent" as "not distant or nearby" and Fig. 1 of Liu et al. clearly shows the magnets 43a-43d are located nearby the shaft. Moreover, the term "substantially" is a relative term, it does not define how close the magnet should be with respect to the shaft or the range for the distance between the magnet and the shaft.

Regarding claims 16-18, the Applicant's argument is on the ground that the reference the Examiner relies on, Miyashita et al., fails to show the flux not passing the shaft because in Col. 3, lines 15-33 disclose "the magnetic flux passes through the shaft only with difficulty because of the skin effect since the shaft is bulky, and hence it concentrated in the iron core". The Examiner respectfully disagrees with the Applicant because the magnetic flux always seeks the easy path to pass, therefore, the magnetic flux only pass to the iron core with good permeability. It is noted that there is virtually no difference between the structure of Miyashita et al. as shown in Fig. 1 and the structure of the present invention as shown in Fig. 42. If the magnetic field does not pass through the shaft as in Fig. 42 of the present invention, the magnetic field will not pass through the shaft in the structure of Miyashita et al.

For the reasons explained above, the rejection is still deemed proper.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Information on How to Contact USPTO

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh N Nguyen whose telephone number is (571) 272-2031. The examiner can normally be reached on Monday through Friday.

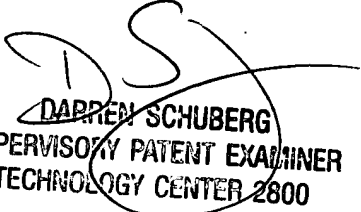
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg, can be reached on (571) 272-2044. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and (571) 273-8300 for After Final communications.

Art Unit: 2834

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

HNN

November 9, 2006


DARREN SCHUBERG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800